Building Self-Aware and Adaptive Engineers and Scientists --Reconstructing Iraq

Army Career Program 18 Conference
25 August 2004

Army Doctrine

How Do We Train Our People And Grow Leaders?

- Operational Experiences
- Educational Experiences

SELF-DEVELOPMENT

Principles of Leader Development

- Mission Focused
- Doctrinally Based
- Performance Oriented
- Train as You Fight
- Leader as Primary Trainer
- **Know Yourself**
- **Lifelong Learning**
- Mentorship

Goals

- **Win the Peace in Iraq.**
- **Properly execute the Supplemental work.**
- **Stimulate Employment in Iraq.**
- **Build the capacity of Iraq Construction and related supporting industry.**
- **Build the Iraqi capacity for large Program Management in Iraq.**

Observations

- **Security and Infrastructure are essential and inseparable for the future of Iraq**
- **Largest reconstruction effort since WWII**
- **Major economic impact on Iraq**
- **Transition from CPA to Iraqi sovereignty on 1 July brought new challenges**

Absolutes

- Full and open competition
- Transparent transactions at every level
- Full accountability and reporting
- Several auditing agencies involved to assure compliance with the law

Challenges

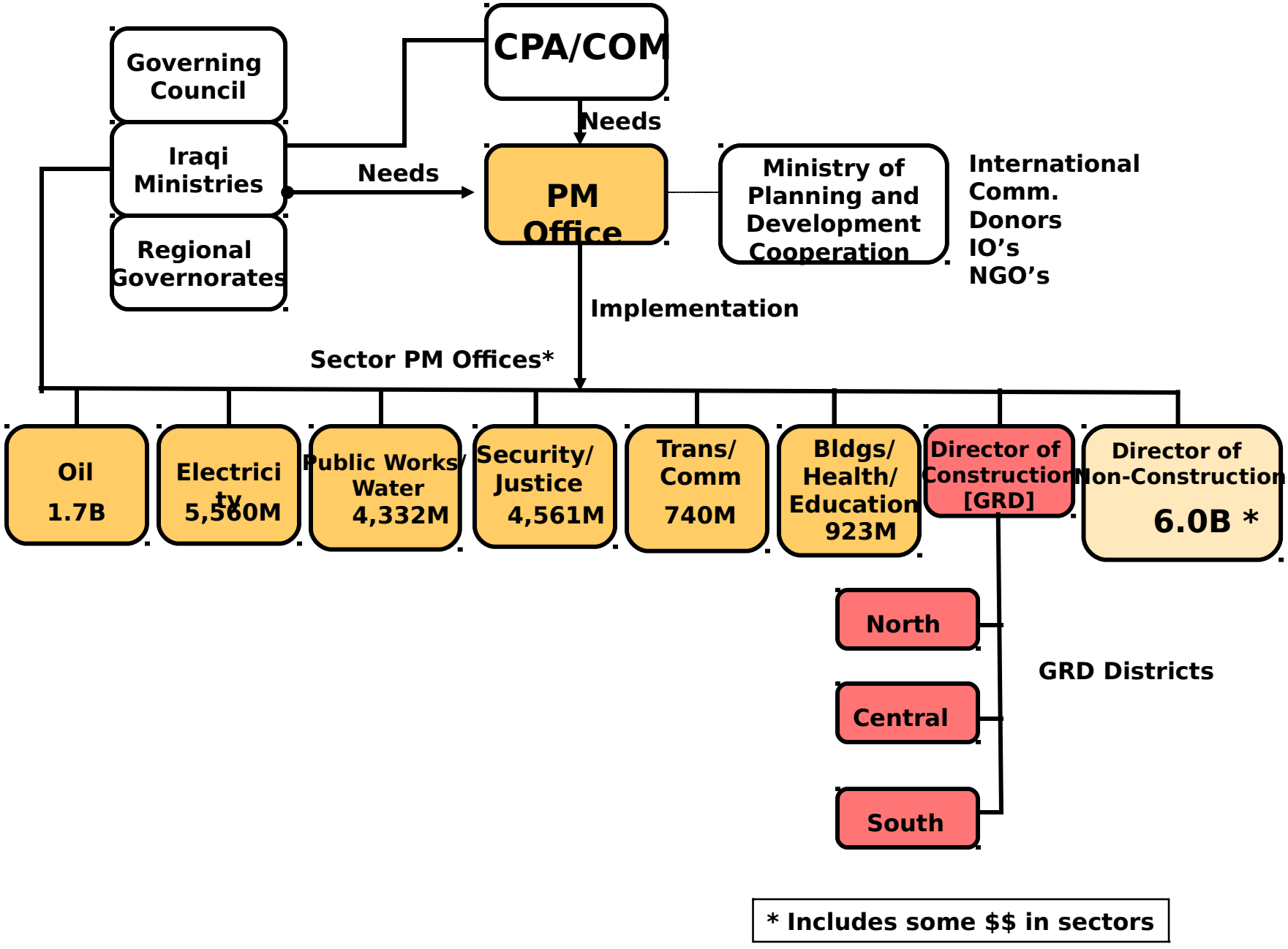
Sabotage

Looting

War Damage

Security

Iraq Program Management Office



* Includes some $$ in sectors

Supplemental Funds Breakdown

$18.4 Billion for Reconstruction

(6.0) Non-Construction items

$12.4

(4.0) Reserve

$ 8.4 Available

Process

- **Two Part process**
  - **Part 1 – Construction Projects**
  - **Part 2 – Non-Construction items**
    - **Procured Items**
    - **Non-Procured Items**

Project Prioritization Criteria

- **Largest positive impact on the Iraq Population**
  - **Security**
  - **Economy/Employment**
  - **Essential Services**
  - **Governance**
- **Lead time for Construction**
  - **e.g. Thermal Power Plants**
- **Natural precedence of Construction and Operation.**
  - **e.g. Bridges before Railroad tracks**
- **Ready for Construction Tasking**

Infrastructure Overview

Infrastructure Condition

- War damage affected communications, selected buildings, and roads and bridges.
- Major deterioration due to decades of neglect and poor maintenance
- Major damage occurred as a result of looting
- Some sabotage continues to occur

Electricity

- **Current Peak Demand - Nearly 6000 MW**
- **Current output – Approximately 4000 MW**
- **Installed Capacity Amounts to 10000 MW**
- **Power Plant Summary:**
  - **8 Steam Generation Plants**
  - **16 Gas Turbine (Single Cycle) Plants**
  - **5 Hydropower Plants**

Circuit Breaker

Downed Power Line

Potable Water

- **Potable Water**
  - **Tigris/Euphrates supply 2/3 of the drinking water**
  - **226 conventional water treatment plants and 1,200 compact units**
- **Equipment purchased under Oil for Food is poor quality, from a variety of sources**
- **60% of urban areas have potable water (Near term goal to improve to 75%)**
- **60% of water in distribution**

Sewerage/Solid Waste

- 6% of the sanitary waste in Iraq is currently being treated.
- 80 % of Baghdad and 9% of the remaining urban population have sewage treated.
- Solid waste is disposed of in unregulated garbage dumps or burned.

Karkh Sewage Treatment Plant

Security/Justice

- 150 police stations need upgrading or new construction
- Courthouses, jails and prisons require upgrade or new construction
- 179 existing fire stations need rehabilitation and 200 new fire stations are required for life safety
- The new Iraqi Army of 40,000

Oil

- **Background:**
  - **World's 2nd largest known oil reserves**
  - **95% of nation's income from oil**
  - **Production goal for Dec 03 was 2.0 Mbpd**
- **Goals:**
  - **Production: 2.5 million bpd by 31 Mar 04**
  - **Production: 3.0 million bpd by 31 Dec 04**
- **Iraq currently exceeding production targets for crude oil (2.5 Mbpd produced on 27 Feb 04)**

Buildings/Health

- **Hospitals lack security, clean water, reliable electricity, process gases, medical supplies & equipment**
- **Iraq needs more outpatient clinics throughout the country.**
- **80% of Primary and Secondary Schools require Significant Reconstruction**
- **Several ministry buildings require significant work**

Washash Clinic

Transportation / Communications

- 3 Major Airports - Baghdad, Al Basrah, Mosul
- 3 Major Ports - Umm Qasr, Khawr az Zubayr, Al Basrah
- 38,400 KM Paved Roadways, 1,963 KM Railroad
- All of the above suffering from 30 years of neglect and three wars

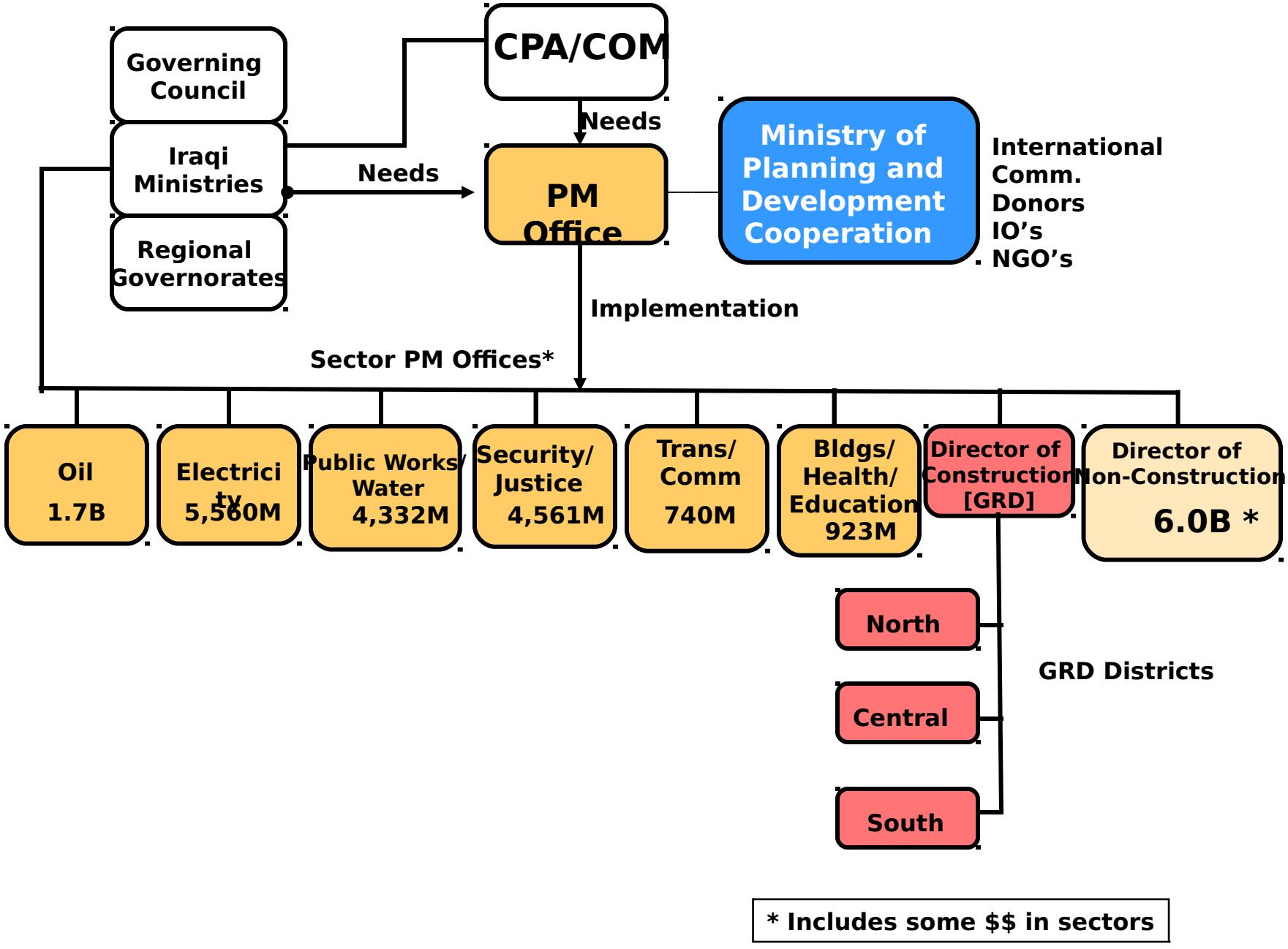
Bridge Damaged in 2003 War

Non-Construction

Project Prioritization Criteria for Non-Construction Procurement

- Largest positive impact on the Iraq Population
  - Security
  - Economy/Employment
  - Essential Services
  - Governance
- Timing to support major initi
- Required timing by requester
- Accountability and safe keeping

Iraq Program Management Office



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Take-Away

- Ice- Cube – Domains of Combat
- Carbon or Diamond?

What Makes A Great Career Program Manager?

YOU ARE THE BEST CAREER PROGRAM MANAGER YOU WILL EVER HAVE – Be, Know, DO, Learn…You have CONTROL!!!

QUESTIONS